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December 4, 1978

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Mr. Joseph W. Karen
Legal Analyst
Division of Water Pollution Control
State Board of Health
1330 W. Michigan Street
Indianapolis, Indiana 46206

Dear Mr. Karen:

With reference to your letter of November 14, 1978, relative to our meeting held on the 2nd of November and reflecting the discussion and subsequent agreement reached at that time, we are pleased to submit the following program in compliance with your request.

The program reflects the nature of our water problems and in general reflects the direction that we plan to take to correct the existing conditions; also, a plan to totally isolate our processing site from the surrounding area. We feel that this system will allow for a total accountability of all special liquid wastes resulting from our drum recovery, including those residual sludges normally found in drums coming in-bound and those streams developed through our chemical cleaning process.

We should like to reaffirm our desire to comply with the regulations promulgated by the State of Indiana and we pray for the favorable review of the enclosed plan.

Respectfully,

John J. Gagliello
John J. Gagliello
• President •
Calumet Containers
Steel Container Corp.

Encl.

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The nature of our work, that of receiving empty drums for the purpose of cleaning, and otherwise refurbishing them for re-use by industry, not only collectivizes residual special wastes brought in with each drum, but generates subsequent effluent as a result of our cleaning operations. The problem of isolation, identification, and proper treatment of these wastes, so as to remove any current or potential threat to the environment, is the purpose of this proposed plan.

TYPES OF SPECIAL WASTES RECEIVED:

Recognizing that the predominant source of our empty drums come from the paint, coatings, ink, and graphic arts industries, we can quickly determine that the residuals remaining in the drums will classify as either:

Resins; such as vinyls, acrylics, phenolics, polyesters, co-polymers, of ethylene, and vinyl acetate, styrene, butadiene, nitrocellulose, and others used as a pigment binder in paint, coatings, inks, etc.

Solvents; such as aliphatic, and aromatic hydrocarbons, alcohols, esters, ketones, aldehydes, naphtha, petroleum, and mineral spirits, soddard solvents, and chlorinated hydrocarbons from time to time.

Pigments and Binders; such as Phthalo blue, malachite greens, chrome yellows, carbonates, silicates, oxides of zinc, lead, and magnesium. Diatomaceous earthen materials, clay, kaolin, and other, iron oxide pigments, carbon black, from printing ink.

Plasticizers; such as Dibutyl phthalate, diethyl phthalate, sucrose acetate, isohutyrate, adipates, insoluble oil plasticizers, coconut oil, soybean oil tung oil derived plasticizers.

~~The residual portion of these residuals~~
~~resulting from the incineration of these residuals~~
our planned afterburner, now scheduled to operate between 1500°
and 1600° F.

The ash portion from the inorganic portion of the residual will be blended with a variety of "fixative" cementitious chemicals for development of a benthic mud, to assure non-leachability of the metal oxides formed through incineration. These benthic muds will be then sent to approved landfill sites for the reception of such fixated materials, and disposed of through the manner prescribed by Illinois Environmental Protection Agency, regulation.

In addition to the types of special waste received as residuals in drums listed above, we of course, obtain drums from the basic chemical industry, and categorically divide the styles, and types into two main classifications; inorganic, and organic. To enumerate the entire range of polymeric, intermediate, reactive, and inert substances would go beyond the intent of this preliminary report. We plan however, to have a complete program of waste identification, using the ECHO system of waste classification, and designating in accordance with rules set forth by Title 49 CFR of the Department of Transportation, and provisions outlined under P.L.94-580, when such definitions become available.

To accomplish this end, we will establish a recording system of in-bound drums, utilizing the submitted analysis identification that will be required by those companies submitting drums to us

visions will be part of the over-all plan for Special Waste

Control" to be submitted as part of our agreement of the 2nd of November, 1978.

IN-HOUSE FLOW CONTROL:

The areas of in-house control of special wastes will embrace the areas discussed at our last meeting, namely:

1. Containment of residuals at the conveyor belt leading to the incinerator-boiler complex.
2. Flow diagram, showing the closed loop system of chemical cleaning streams, including sodium hydroxide solutions, from in-put areas, through the boiler portion of the incinerator, to the wash stands, and cooling area, back to the boiler for re-heat, and make up volumes. This program will include removal of suspended solids at strategic points, and de-hydration of solids, to be subsequently fixated, prior to licensed disposal.
3. Provisions to accomodate surface water run-off, to insure isolation from any contaminated areas. Ponding in strategic locations, for sumn collection, pumping to chemical cleaner make-up tanks, filtration, and ph adjustment for in-plant use. Excess surface water run-off will be isolated from the production and storage areas of the operation, and systematic periodic testing will assure the quality of any water leaving the premises.
4. The water through at the end of the tight end line will be engineered to allow for the collection of any condensate at that point. The condensate will be evaluated for use in boiler make-up, and chemical cleaning solution. The residual solids found in such a composition, will be filtered and then enter the solid waste disposal scheme, involving the "fixation" through the use of cementitious substances, for the manufacture of benthic muds, non-leachable that will be disposed of in a licensed sanitary landfill.

system, to insure the non-leachable character of the solids, after concentration. The program calls for the use of the following outside services:

- A. Environmental Clearing House Organization Ltd. This company provides for technical interpretation of laboratory results, and recommends methods, and sites for the licensed disposal of solid wastes generated from special liquid wastes. In addition, the ECHO group suggests areas of engineering improvement, and recovery techniques that will perhaps isolate some redeemable commodities from the special waste streams.
- B. Environmental Waste Removal Corp. This company operates a treatment center for the filtration, de-watering, and blending of energy bearing wastes derived from drum residuals for development of "secondary fuel" currently being used by select industries. In addition, the E. W. R. groups will provide a needed recovery source for chlorinated hydrocarbons, and thereby provide an outlet for such residuals should they occur in our drum program.
- C. U. S. Drum Disposal Corp. This company is organized to provide on-site, or at their site, the equipment and "fixative" earthen materials required for the development of non-leaching benthic mud. The technology of the U. S. Drum group provides for a fixation site located on the southeast side of Chicago, and provides in addition, the necessary receptacles to isolate, and retain quantities of residuals destined for fixation at our site.

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John J. J. J.
President
CALUMET CONTAINER CORP.

Respectfully,

We pray for your favorable consideration of this program, and welcome positive suggestions on how it may be improved.

analyses will also be submitted as part of the total comprehensive program. ter of the 14th of November. Flow charts, drawings, and chemical sideration within the sixty day time period outlined in your letter. A more specific program analysis will be submitted for your consideration.

and we plan to transport, spread, and compact according to engineering specifications now being drawn by the ECHN group. to a permeability rating of 10-8. Such clay is available to us, placed by no less than 12 inches of non-permeable clay, certified use of the solid waste "fixative" system, and the removed soil re-laboratory service, Gulf Coast Laboratories of Fort Forest South, Illinois. The surface contamination will be removed through the with chemical analysis of soil samples obtained by our consultants.